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The Kantian Epistemological Basis for Instrumentalist Methodology

"The inscrutable wisdom through which we exist is not less worthy of veneration in respect to what it denies us than in respect to what it has granted."
- Immanuel Kant

In response to early economist Thomas Malthus's 1798 publication on population theory, Scottish writer and historian Thomas Carlyle termed the discipline of economics as "the dismal science." (Carlyle 528). What inspired this remark has been a source of some debate. Some suggest that this quote refers directly to the pessimistic conclusions reached by Malthus's Iron Law of Population, but those who doubt this explanation suggest that Carlyle was speaking in a far more general way: what turned out so dismally was a scientific pursuit of the secret of the universe through supply and demand. Economics has certainly made leaps and bounds since moral philosopher Adam Smith, often heralded as the father of modern economics, published a formal discussion on the subject in *Wealth of Nations* (1776). Today, this intellectual pursuit has evolved into a predictive and explanatory social science, with an ever-expanding body of groundbreaking findings in new areas of research such as Keynesian macroeconomic growth modeling and Misean praxeological game theory. There is however, a just and proper methodology employed to every science, and the dismal science is no exception. This begs the question, how should scientists go about determining *how* it is that they know what they know?

Deductivist and Instrumentalist scientific methodologies have historically proven to be palpable and proper choices, but epistemological philosophy has many tools for determining which of these theories of knowledge is actually the best to use. Immanuel Kant's theories on epistemology, the nature of perception, and the heavy integration of reason in his arguments provide an informed and thoughtful basis for which to ponder the best process of doing economics. Given Kant's theories and explanations, it becomes clear that the optimal economic methodology has roots in Milton Friedman's Instrumentalism as opposed to John Stuart Mill's Deductivism. This conclusion will be discussed after a detailed overview of the specific Kantian theories being referenced, and a brief review of the central tenants of Deductivism and Instrumentalism. A summary of the compatibility of these two economic methodologies with Kant's epistemological conclusions follows.

Immanuel Kant was an 18th century German philosopher who is widely considered today to be a central figurehead in modern philosophy for his work outlining foundational philosophical frameworks for metaphysics, moral calculus, and his contributions to epistemology. In his work, Kant immersed himself in questioning the relationship between his own subjective human perceptions and the objective physical reality around him. Kant argued that through reason, it could be determined that perception is indeed integrated and continuous with reality, but he also decided that there was a notable fundamental distinction between the conceptions of human experience and the objects of experience themselves. One consequence of this view was that Kant decided that because mental processes are in this way divorced from physical reality, that one could never truly possess a *direct* experience of reality. He maintained that experience is limited by the scope of interpretable sensory data. It is important to note that the manner by which Kant made these conclusions is not synonymous with David Hume's skepticism, and at most may only share common themes with Cartesian methodological skepticism. Kant saw skepticism as dogmatic and as a "region (offering) no dwelling-place for permanent settlement" (Kant 278). Kant, dissatisfied by the empiricism and rationalism of his day, resolved to arrive at his conclusions by employing reason alone.

In the *Critique of Pure Reason* (1787) Kant laid a metaphysical basis for, and then elaborated upon his distinction between "noumena" and "phenomena". Kant's metaphysical theory of perception persistently asserts the difference between analytic and synthetic propositions. Briefly, an analytic proposition is a tautological truism whose predicate concept is contained in its subject, whereas a synthetic proposition in one in which the predicate concept is not contained in its subject, thus making a normative claim. Because a synthetic proposition requires cognitive and linguistic faculties past the mere recognition of formal logic and also necessitates the formulation of one's own subjective valuations in order to evaluate, it is not innately intuitive. A true transcendental idealist, Kant went on to say that because of this preceding fact, much of human knowledge is in the form of concepts not derived from experience, but rather derived by the imperfectly deductive functions of the human mind (a process he coined '*synthetic* a priori'). For example, if we consider the claim that "An apple has color", until we see the apple, we are unable to perceive of if it is red or green. The experience of color is first required before its specific hue is even knowable. Kant's metaphysics dictate that experience is thus based on a various proportions of the perception of external objects and a priori knowledge, while any truly direct experience remains obscured. The logical conclusion following this premise is that it is only apparent that the external world provides sensory data, while the mind supplies the conceptions of matter, form, and time in order to attempt to comprehend this data in an (ultimately arbitrary) but nevertheless meaningful and practical way.

This theory of perception is the basis for the noumenon/phenomenon distinction. Basically, using the example above, phenomenon is represented by the specific hue of the apple, while the "apple" in and of itself is represented by noumenon. Phenomenon is essentially derived from any manifestation of sensory input, whereas noumenon is the subject of inquiry. Considering the previously outlined metaphysics of perception, it is important to clarify that a subject of inquiry, for example the apple, is *continuous with* its properties, yet is not the *same as* its properties. The noumenal objects of which we are sensually aware are by definition not "noumena", because noumena are a representation of the obscured fundamental *stuff* of which phenomena is derived. To successfully describe noumena without utilizing symbols to communicate its properties is a contradiction, and a frustrating paradox equivalent to the task of, say, characterizing an object of matter without also innately expressing any qualities of its form. According to Kant, it is possible to intimately sense and experience phenomena, but one can never truly know the dynamics of the noumena, as the "things-in-themselves" from which any sort of claim is ultimately derived are obscured. However, Kant was careful to clarify that he believed that while the "things-in-themselves" could not be experienced or pointed to, for consistency's sake they must in fact *exist*:

> "Though we cannot know these objects as things in themselves, we must yet be in a position at least to think them as things in themselves; otherwise we should be landed in the absurd conclusion that there can be appearance without anything that appears…but in that case a noumenon is not for our understanding a special kind of object, namely, an intelligible object; the sort of understanding to which it might belong is itself a problem. For we cannot in the least represent to ourselves the possibility of an understanding which should know its object, not discursively through categories, but intuitively in a non-sensible intuition" (Kant 312).

Now that the underlying distinctions between ideas and that which ideas describe has been discussed, there are a number of illuminating factors to consider before determining the best course for conducting economics. Given this perspective on the nature of reality and the conceptions of reality, Kant's theories can be used to heavily inform and guide epistemological methodology. That branch of philosophy that delves into the nature of and the proper acquisition of knowledge is shaken up since the objects for which so many vehement judgments and established constants are made are shown to be *obscured*. If the "thing-in-itself" for which science establishes physical laws is obscure, what does this mean for formulations of natural law? Holding a physical law as separate from simple subjective experience becomes difficult if there is a blurred line between that which can truly be practically identified and studied, and that which is all a mere product of a cognizant observer's own mental projections. Truth claims are necessarily reduced to observations of frequently centralized tendencies in the perception of phenomena. Kant's theories at the very least can provide a more informed perspective for a proper methodology for economics must be narrowly focused on accommodating for what sort of economic sentiment is knowable and what is not knowable.

Deductivism, the scientific methodology espoused most prominently by empiricist John Stuart Mill, determines that the subjective political economy can be best studied through deduction, primarily because economic experimentation is practically difficult. Mill also held that empirical confirmation is essential to the (as he describes) inexact science of economics. This puts considerable weight on the underlying assumptions regarding an economic model: "Political Economy…reasons, and, as we contend, must necessarily reason, from assumptions, not from facts. It is built upon hypotheses, strictly analogous to those which under the name of definitions, are the foundations of the other abstract sciences" (Mill 45). Mill also asserted that

that testing itself does not bear on one's commitment to basic laws that are discernable through one's own intuition and common sense. Mill does not accommodate formulations of universal law, but makes room for "tendencies" and contends that these tendencies are so obviously the everyday facts of reality that controlled experimentation is unnecessary to arrive at the conclusions that could otherwise be more efficiently confirmed through direct confirmation:

> "By method of a posteriori we mean that which requires, as the basis of its conclusions, not experience merely, but of specific experience…To verify the hypothesis itself a posteriori, that is to examine whether the facts of any actual case are in accordance with it is (part of) the application of science" (Mill 45).

Mill's methodology does not entertain the possibility that theories that make claims about unobservable entities and properties that can't be empirically tested might nevertheless still be meaningful and testable. For Mill, human errors in economics do not occur when agents make too *wide* an assertion, but the wrong *kind* of assertion. When economics doesn't "work", it means that the situation at hand does not call for the applications of the constant and innate laws of economics, not that economics as it is perceived is potentially uninformed or requiring revision.

Instrumentalism, espoused in the context of economics through logical positivist Milton Friedman takes a considerably different course than Mill's Deductivism when going about conducting science. For Friedman, accurate and dependable science reveals nothing known as either true or false about that which is unobservable. Instrumentalism tasks itself with the precise prediction of observations within a given domain by forming measurably accurate statements that summarize the expressions of pattern. Instrumentalism does not, however attempt to *explain why* an observable phenomenon occurs, only to explain the functional co-interactions of the variables at hand as they've been modeled:

> “Factual evidence can never ‘prove’ a hypothesis; it can only fail to disprove it, which is what we generally mean when we say, somewhat inexactly, that the hypothesis has been ‘confirmed’ by experience…Viewed as a body of substantive hypotheses, theory is to be judged by its predictive power for the class of phenomena which it is intended to ‘explain.’ Only factual evidence can show whether it is ‘right’ or ‘wrong’ or, better, tentatively ‘accepted’ as valid or ‘rejected.’” (Friedman 148-149).

Friedman explained that the purpose of economics is to illuminate “what is” to make consistently accurate, reliable, meaningful predictions about phenomena not yet observed. Formulations of natural law are secondary to predictive accuracy, because if the results of experimentation result in an unintuitive outcome, this outcome should still be adopted. It is not to say that this outcome should be adopted as a representation of innate *truth*. Specifically, the only claim that is possible to make in instrumentalism is a claim on what the data and analysis currently suggests *could* be true. Friedman’s emphasis on prediction likely lead him to determine that the only way to judge the validity of an economic model was by its predictive accuracy, not by the realism of the assumptions. Friedman believed that adherence to the realism of a theory’s assumptions actually decreases the power of the theory:

> “The relevant question to ask about the ‘assumptions’ of a theory is not whether they are descriptively ‘realistic,’ for they never are, but whether they are sufficiently good approximations for the purpose in hand. And this question can be answered only by seeing whether the theory works, which means whether it yields sufficiently accurate predictions. The two supposedly independent tests thus reduce to one test” (Friedman 153).

Given the metaphysical and epistemological assertions outlined by Kant, the Instrumentalist methodology is clearly more compatible with the nature of human perception and physical reality, whereas Deductivism makes truth-claims and formulations that are weaker. As Kant demonstrated, that which can be observed is wholly subjective. Instrumentalism has no contention to make grand claims on noumena, but tasks itself instead with describing the *functions* of noumena as expressed through phenomena. Deductivism holds that empirical evidence tells us whether or not a law is a major determining factor in the particular circumstances at hand or whether there are disturbing or interfering causes. This manner of scientific calculus undermines the distinctions between conceptions and that object by which ‘common sense’ claims are attributed to. There is no appropriate context in scientific economics for the vehement adherence to imagined conceptualizations that are held as true and absolute simply because of popularity and accessibility. It is neither prudent nor honest to consider claims as true because of confirmation biases presented under the guise of directly experienced, intuitive truth. Adopting such a methodology is not conducive to the reckless abandonment of “feel-good” or convenient beliefs, but instead panders to them. Economists should be humbly mindful that the observed interactions of variables reveals nothing about the truth of the universe, but rather reveals what human experience would dictate as a frequently expressed pattern. Economic science, or any scientific pursuit for that matter, and its innovations should not be limited by the scientific methodologies that would justify the strict defense of claims on fundamentals that are accepted and adopted on the condition that they are the most personally palpable to the observer’s limited and phenomenal experience, however sacred it may be.

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